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09/918,303	07/30/2001	Akihito Nishikawa	13700-261901	9884

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EXAMINER

RAPP, CHAD

ART UNIT	PAPER NUMBER
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2125

DATE MAILED: 10/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/918,303

**Applicant(s)**

NISHIKAWA ET AL.

**Examiner**

Chad Rapp

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,7,8,12,13,16,17,21,22,24,28,29,31 and 32 is/are rejected.
- 7) ☒ Claim(s) 3-6,9-11,14,15,18-20,23,25-27 and 30 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>07/30/01</u> | 6) <input type="checkbox"/> Other: _____  |

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1. Claims 1-32 are presented for examination.

***Specification***

2. The abstract of the disclosure is objected to because it contains too many words(must be <150 words). Correction is required. See MPEP § 608.01(b).

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-15, 17-21, 23-28 and 30-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 9 “the user” should be changed to “an user”. There is insufficient antecedent basis for this limitation in the claim.

In claim 2, line 5 “the user” should be changed to “an user”. There is insufficient antecedent basis for this limitation in the claim.

In claim 3, line 5 “the usage circumstances” should b changed to “usage circumstances”. There is insufficient antecedent basis for this limitation in the claim.

In claim 4, lines 4-5 “the circumstances” should be changed to “circumstances”. There is insufficient antecedent basis for this limitation in the claim.

In claim 9, lines 8-9 “the market” should be changed to “market”. There is insufficient antecedent basis for this limitation in the claim.

In claim 14, line 9, “the provider” should be changed to “a provider”. There is insufficient antecedent basis for this limitation in the claim.

In claim 17, line 11 “the user” should be changed to “an user”. There is insufficient antecedent basis for this limitation in the claim.

In claim 18, lines 4-5 “the usage circumstances” should b changed to “usage circumstances”. There is insufficient antecedent basis for this limitation in the claim.

In claim 23, line 10 “the market” should be changed to “market”. There is insufficient antecedent basis for this limitation in the claim.

In claim 24, line 13 “the user” should be changed to “an user”. There is insufficient antecedent basis for this limitation in the claim.

In claim 25, line 5 “the usage circumstances” should b changed to “usage circumstances”. There is insufficient antecedent basis for this limitation in the claim.

In claim 30, line 11 “the market” should be changed to “market”. There is insufficient antecedent basis for this limitation in the claim.

In claim 31, line 12 “the user” should be changed to “an user”. There is insufficient antecedent basis for this limitation in the claim.

***Allowable Subject Matter***

5. Claims 3-6, 9-11, 14-15, 18-20, 23, 25-27 and 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 16, 22, 29 and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by Miyakawa et al.

Miyakawa et al. teaches the claimed invention (claims 16, 22, 29 and 32)

including:

- a. Prompting user to input the wants and needs information by way of a wants and needs information input/output equipment provided at the product or at apparatus containing the product is taught as a guide information unit for guiding operations of a user for inputting commands and data(wants and needs)(abstract);
- b. Sending the wants and needs information input by the user by way of the aforesaid wants and needs information input/output equipment to a server is taught as a server machine section includes a register unit for storing evaluation elements defined by the user(abstract).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1, 12-13, 17, 24 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ulwick in view of Suther et al.

Ulwick teaches the claimed invention (claims 1, 17, 24 and 31) substantially as claimed including a process for designing a product automatically in accordance with a desired product design concept for a product under consideration comprising:

a. Analyzing wants and needs information which has been input with respect to the product under consideration is taught as a computer program product for use with computer system for providing a process strategy evaluation and optimization; which directs computer to evaluate data specific to desired outcomes (abstract and col. 3 lines 1-16);

b. Based on the aforesaid analyzed wants and needs information, carrying out weighting with respect to evaluation indices which are quantitative measures of the degree to which the user is likely to perceive a benefit latent in the product under consideration and inherent in the aforesaid wants and needs information to have been achieved, and selecting at least one index among a plurality of such weighted evaluation indices as a primary evaluation index is taught as one of the predictive metrics (evaluation indices) exists for each desired outcome. The effect of predictive metrics on each desired outcome is quantified by weights. The relationship of each metric to each outcome is quantified in terms of the degree with the highest certainty to which the desired outcomes will be achieved. Therefore the metric (primary evaluation index) with the most synergy will be used to choose between alternatives (col. 6 lines 42-56 and col. 11 lines 12-14).

c. Selecting at least one index among a plurality of such weighted evaluation indices as a primary evaluation index is taught as the metric (primary evaluation index) with the most synergy is used as a criteria to choose between alternative solutions. The metric that predicts the satisfaction of a disproportionate share of values as defined by the

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desired outcomes. A cumulative predictive value(primary evaluation index) which represents the strength of the predictive metric with respect to the degree to which the predictive metric predicts satisfaction of all the prioritized desired outcomes(col. 16 lines 11-15 and col. 11 lines 12-14).

Ulwick teaches the above details of the independent claims 1, 17 , 24 and 31, however, Ulwick does not teach: defining at least one product design concept for which the primary evaluation index selected at said primary evaluation index selecting step is a maximum or minimum.

Suther et al. teaches :

a. Defining at least one product design concept for which the primary evaluation index selected at said primary evaluation index selecting step is a maximum or minimum is taught as the concept selection matrix data analysis determine the concept(primary evaluation index) which satisfies all of the requirements identified(page 7)

It would have been obvious to one of ordinary skill in the art at the time the invention was made or used to modify the teachings of Ulwick with the teachings of Suther et al. because the Suther et al. invention would allow the following benefits: shorter product cycle time, reduced development cost, prioritize your development effort, improved communications with the business unit, world class product quality, provide key measurable target criteria, satisfied customers and provides benchmarking comparisons.

As to claim 12, Ulwick teaches that wherein said evaluation indices are indices which admit of quantitative measurement and which are capable of being controlled at

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the product provider's site is taught as internal customers(provider) have their own desired outcomes which effect the product design(col. 15 lines 13-28).

As to claim 13, Suther et al. teaches that selecting a product design concept having the highest total adjusted score from a group of design concepts associated with a product design concept defined at said product concept definition step, said adjusted score being obtained by calculations involving increase or decrease of scores for the aforesaid evaluation indices in correspondence to evaluation of the likely effect of adoption of the respective product design concepts is taught as the concept the most satisfies all the requirements identified. The customer requirements go through weighting, strength of relationships, prioritizing, another strength of relationship, then put into the matrices of the four areas of the design process management to get the overall top concept(page 7).

It would have been obvious to one of ordinary skill in the art at the time the invention was made or used to modify the teachings of Ulwick with the teachings of Suther et al. because the Suther et al. invention would allow the following benefits: shorter product cycle time, reduced development cost, prioritize your development effort, improved communications with the business unit, world class product quality, provide key measurable target criteria, satisfied customers and provides benchmarking comparisons.

10. Claims 7, 8, 21 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ulwick in view of Suther et al. and further in view of Miyakawa et al.

Ulwick and Suther et al. teach the claimed invention (claims 1, 17, 24 and 31) see paragraph number 9 above.



As to claim 7, Miyakawa et al. teaches prompting user to input said wants and needs information is taught as a guide information unit for guiding operations of a user for inputting commands and data(wants and needs)(abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was used or made to modify the teachings of Ulwick with the teachings of Miyakawa et al. because it is concerned with the improvement of reduction of cost. Based on design information an evaluation is made to see if there is a better design or to find the optimal design.

As to claim 8, Miyakawa et al. teaches prompting user to input wants and needs information with respect to the product by way of a wants and needs information input/output equipment provided at the product or at a product containing the product is taught as a guide information unit for guiding operations of a user for inputting commands and data(wants and needs)(abstract);

b. Sending said wants and needs information input by the user by way of said wants and needs information input/output equipment to a server is taught as a server machine section includes a register unit for storing evaluation elements defined by the user(abstract).

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It would have been obvious to one of ordinary skill in the art at the time the invention was used or made to modify the teachings of Ulwick with the teachings of Miyakawa et al. because it is concerned with the improvement of reduction of cost. Based on design information an evaluation is made to see if there is a better design or to find the optimal design.

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As to claims 21 and 28, Miyakawa et al. teaches a wants and needs information collector that prompts user to input said wants and needs information is taught as an input device that is linked to a server that registers user data(abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was used or made to modify the teachings of Ulwick with the teachings of Miyakawa et al. because it is concerned with the improvement of reduction of cost. Based on design information an evaluation is made to see if there is a better design or to find the optimal design.

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ulwick in view of Suther et al.

Ulwick teaches the claimed invention (claim 2) substantially as claimed including a process for designing a product automatically in accordance with a desired product design concept for a product under consideration comprising:

a. Carrying out, based on wants and needs information which reflects the wants and needs of the user with respect to the product under consideration, weighting with respect to evaluation indices which are quantitative measures of the degree to which

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the user is likely to perceive a benefit latent in the product under consideration and inherent in the aforesaid wants and needs information to have been achieved is taught as one of the predictive metrics(evaluation indices) exists for each desired outcome. The effect of predictive metrics on each desired outcome is quantified by weights. The relationship of each metric to each outcome is quantified in terms of the degree with the highest certainty to which the desired outcomes will be achieved. Therefore the metric(primary evaluation index) with the most synergy will be used to choose between alternatives(col. 6 lines 42-56 and col. 11 lines 12-14):

b. Selecting at least one index among a plurality of such weighted evaluation indices is selected as a primary evaluation index is taught as the metric(primary evaluation index) with the most synergy is used as a criteria to choose between alternative solutions. The metric that predicts the satisfaction of a disproportionate share of values as defined by the desired outcomes. A cumulative predictive value(primary evaluation index) which represents the strength of the predictive metric with respect to the degree to which the predictive metric predicts satisfaction of all the prioritized desired outcomes(col. 16 lines 11-15 and col. 11 lines 12-14).

Ulwick teaches the above details of the independent claim 2, however, Ulwick does not teach: defining at least one product design concept for which the primary evaluation index selected at said primary evaluation index selecting step is a maximum or minimum.

Suther et al. teaches :

a. Defining at least one product design concept for which the primary evaluation index selected at the aforesaid primary evaluation index selection step is a

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maximum or minimum is taught as the concept selection matrix data analysis determine the concept(primary evaluation index) which satisfies all of the requirements identified(page 7)

It would have been obvious to one of ordinary skill in the art at the time the invention was made or used to modify the teachings of Ulwick with the teachings of Suther et al. because the Suther et al. invention would allow the following benefits: shorter product cycle time, reduced development cost, prioritize your development effort, improved communications with the business unit, world class product quality, provide key measurable target criteria, satisfied customers and provides benchmarking comparisons.

#### ***Conclusion***

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chad Rapp whose telephone number is (703)306-4528.

The examiner can normally be reached on Mon-Fri 11:00-7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on (703)308-0538. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Note: Examiner Rapps new phone number(571-272-3752) will be effective on October 13<sup>th</sup>, 2004.

Chad Rapp  
Examiner  
Art Unit 2125

cjr



LEO PICARD  
SUPERVISORY PATENT EXAMINER  
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